

**New England Air Quality Study - Intercontinental Transport and Chemical Transformation
“Teacher in the Field” Opportunity for Summer, 2004**

Have you ever dreamed of participating in exciting international scientific research? If you have, the National Oceanic and Atmospheric Administration (NOAA) “Teacher in the Field” program is looking for you!

We are seeking two energetic, adventurous, dedicated teachers for our sponsored “Teacher in the Field” project. Our Teachers in the Field will get to participate in the **2004 New England Air Quality Study-Intercontinental Transport and Chemical Transformation (NEAQS-ITCT 2004)** field mission, travel to New England where the mission operations base will be located (near Portsmouth, NH), be a part of collecting and analyzing data on a research ship, interact with scientists who make measurements from a research aircraft, and teach her/his classes via the Web. NOAA's Marine and Aviation Operations Office and NOAA's Office of Global Programs have successfully supported 10 Teachers at Sea and Teachers in the Field. The NOAA Teacher in the Field program is part of NOAA's Teacher at Sea program (see references below).

The Proposed Date:

01 July 2004 – 17 August 2004

The Location:

The principal study area for the NOAA research vessel Ronald H. Brown will be the Gulf of Maine although an excursion out into the North Atlantic Ocean is also anticipated. The ship will sail from Boston, MA, in early July, have a port-of-call for science discussions in Portsmouth, NH, in late July, and will end the cruise in Charleston, SC, in mid-August. Pease International Tradeport near Portsmouth will be where the NOAA WP-3D research aircraft will be based, and will also be the operations center for the mission. Sites for ground-based measurements will be located throughout New England.

The Science:

The study will examine the effects of air pollution on regional air quality, the interaction of gases, aerosols and cloud processing with radiation fields (i.e., climate effects), and the long-range transport and transformation of pollutants both into the New England region and out to the North Atlantic Ocean to Europe. A significant part of the study will involve the use of computer models for predicting and assessing long-range (e.g., hemispheric) transport of material and for forecasting regional air quality (e.g., ozone) in much the same way that numerical models forecast weather. The NEAQS-ITCT 2004 mission will be conducted in concert with studies sponsored by other U.S. as well as Canadian and European organizations and thus will be international in scope.

Further details about the research:

ITCT-NEAQS 2004

Site includes Science Plan (draft), General Information, Forecast Models, Profiler Network, and Platforms
www.al.noaa.gov/2004

NOAA Teacher at Sea Program

Applications are available on this web page
<http://www.tas.noaa.gov>

OGP Sponsored Teachers at Sea

To learn more about OGP sponsored Teachers at Sea, please visit <http://www.ogp.noaa.gov/tas>

ITCT:

www.al.noaa.gov/ITCT

NEAQS:

www.al.noaa.gov/NEAQS

The P3:

www.aoc.noaa.gov/aircraft_lockheed.htm

The Ron Brown:

www.moc.noaa.gov/rb/index.html

"Air quality in the New England region":

<http://airmap.unh.edu/about/whyne.cfm>

"Regional air quality forecasts"

www.temp-aq.org

IGAC:

www.igac.noaa.gov

AL:

www.al.noaa.gov

ETL:

www.etl.noaa.gov

FSL:

www.fsl.noaa.gov

PMEL:

www.pmel.noaa.gov

AIRMAP:

airmap.unh.edu

NSF:

www.geo.nsf.gov/atm

NASA:

http://www-gte.larc.nasa.gov/gte_hmpg.htm#table

Requirements/Qualifications:

- K-16 teacher currently employed by a school, college, or university (sabbaticals welcome)
- Current photo ID (valid passport for non-U.S. citizens)
- Unique ability to communicate complicated scientific information to students, with a preferred special interest in climate or atmospheric science
- Computer savvy (familiar with using a digital camera, e-mail, and MS Word a plus)
- Comfortable with travel (experienced traveler preferred)
- No problems spending time on a ship for 2-3 weeks at a time
- Willing to participate in or conduct scientific measurements (e.g., launch radiosondes)
- Willing to assist with some aspects of data taking and data reduction
- Principal/School district/supervisor/ head of department **MUST** be extremely supportive of your participation in the project
- Comfortable in front of a camera (feel free to send demo video; videos will not be returned)

Costs:

All the necessary travel costs are covered by the sponsorship. In addition, a modest stipend will be paid. The NEAQS/ITCT "Teachers in the Field" may travel to Washington, DC for an orientation and to at least one of the U.S research institutions that are involved in the experiment. While on the ship, the teacher will be expected to write daily logs, take and transmit digital pictures, interview scientists, and prepare lesson plans involving the science of the mission. At the conclusion of this project, the teacher may be expected to attend a Congressional reception, hosted by her/his Representative and/or Senator(s).

If you are interested in this project, please start by visiting the NOAA Teacher at Sea Web site (<http://www.tas.noaa.gov>) and fill out the application and medical form. It is very important to note on your application that you are interested in being the **NEAQS-ITCT Teacher in the Field (Summer 2004)**.

Note: The application is primarily geared toward our Teacher at Sea Program. If you are interested in the NEAQS-ITCT project, you must note it on your application.

Once you complete and mail your application, please **ALSO** send a copy of your resume to jennifer.hammond@noaa.gov. **All applications/resumes are due by February 20, 2004.**